

CLAIMS

What is claimed is:

1. A method comprising:
5 detecting that a wireless communication device has neither sent nor received packet-based real-time media for a threshold period of time; and
responsively sending from the wireless communication device into a radio access network at least one keepalive signal.
- 10 2. The method of claim 1, wherein sending at least one keepalive signal comprises periodically sending keepalive signals.
3. The method of claim 2, wherein the radio access network imposes a radio-link timeout period, and wherein periodically sending keepalive signals comprises:
15 sending keepalive signals at a period that is shorter than the radio-link timeout period.
4. The method of claim 1, wherein, the wireless communication device communicates with the radio access network over a radio-link, and wherein sending at least one keepalive signal into the radio access network comprises:
20 sending keepalive signals into the radio-access network in order to hold open the radio-link.

5. The method of claim 1, wherein the radio access network applies a radio-link timeout timer to a radio link assigned to the wireless communication device, and wherein the at least one keepalive signal comprises any packet-data that would cause the radio access network to reset the radio-link timeout timer.

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6. The method of claim 1, wherein the keepalive signal is an empty Real-time Transport Protocol (RTP) packet.

7. The method of claim 1, wherein the radio access network provides connectivity with a packet-switched network, and wherein sending the keepalive signal into the radio access network comprises sending the keepalive signal into the radio access network for transmission, in turn, into the packet-switched network.

8. A system for maintaining a radio link assigned to a cellular mobile station, the system comprising:

means for detecting that the cellular mobile station has neither sent nor received packet-based real-time media for a threshold period of time; and

means for responsively sending from the cellular mobile station into a radio access network at least one keepalive signal.

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9. A cellular mobile station comprising:

a processor; and

a wireless communication interface,

wherein the processor is programmed to make a determination that the cellular mobile station has neither send nor received real-time media for a threshold period of time, and

wherein the processor is programmed to respond to the determination by sending at least one keepalive signal via the wireless communication interface into a radio access network,

5 whereby sending a keepalive signal into the radio access network causes the radio access network to reset a radio-link timeout timer for a radio link assigned to the cellular mobile station.

10 10. The cellular mobile station of claim 9, wherein the processor is programmed to periodically send keepalive signals into the radio access network in response to the
10 determination.

15 11. The cellular mobile station of claim 10, wherein the radio-link timeout timer has a timeout period, and wherein the processor is programmed to send the keepalive signals into the radio access network at a period that is shorter than the timeout period.

12. A communication system comprising:
a mobile station having a processor, data storage, a user interface, and a wireless communication interface;

20 a radio access network that communicates with the mobile station over an air interface and that provides connectivity between the mobile station and a packet-switched network, wherein the radio access network is arranged to establish a radio link layer connection with the mobile station over the air interface and to release the radio link layer connection after a

predefined period of time during which no packet-data is communicated to or from the mobile station over the air interface;

wherein the mobile station is arranged to engage in packet-based real-time media communications; and

5 wherein the mobile station is arranged (i) to detect that no packet-based real-time media has been communicated to or from the mobile station for a threshold period of time that is less than the predefined period of time, and (ii) to responsively transmit packet-data as a keepalive signal over the air interface.

10 13. The communication system of claim 12, wherein the packet-data that the mobile station transmits as a keepalive signal is an empty Real-time Transport Protocol (RTP) packet.

14. The communication system of claim 12, further comprising a communication server on the packet-switched network,

15 wherein the mobile station is arranged to send the packet-data as a keepalive signal to the communication server.

15. The communication system of claim 14, wherein the packet-data that the mobile station transmits as a keepalive signal is an empty Real-time Transport Protocol (RTP) packet.

20 16. The communication system of claim 12, wherein mobile station further includes a push-to-talk button, and the communication server is arranged to bridge voice-over-packet communications between the mobile station and one or more other stations.